VIPUL CHASKAR

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WORK EXPERIENCE:

Software Engineering Intern **A10 Networks, San Jose, CA** May 2018 - Aug 2018

- Developed a test recorder tool for Config Management module to automatically record and replay the manual tests.
- It automatically records the config commands sent to CM module, along with backend output from CM. Then it generates test case scripts which replay the commands on CM module and verifies generated backend output.
- Added features in testing frameworks PyRestTest and Tavern for internal use through docker containers.

Associate Software Engineer **Veritas Technologies LLC** Jun 2015 - Jun 2017

- Worked in cross-functional agile scrum teams on Velocity - a Copy Data Management solution which performs automatic backup/ingests of Oracle/SQL databases and provides access to their virtual copies through a cloud portal.
- Developed REST APIs to interact with Velocity appliance on customer premises and modules on appliance to manage logs and communicate with management services in cloud.
- Developed parts of the workflows pertaining to NFS/CIFS share management, storage of relevant metadata and communication with agents on workload servers.
- Wrote shell scripts to configure application and system settings during install/boot time.
- Performed testing with robot framework and end-to-end Jenkins CI/CD pipeline.
- Was part of the Security Response Team and largely drove the efforts for mitigating Input Validation attacks.
- Received Veritas applause awards twice for exceptional perseverance.

EDUCATION:

M.S. Computer Science **State University of New York, Binghamton** Aug 2017 - May 2019 (expected)
GPA: 4.0

- Courses: Distributed Systems, Architecture, PL, OS, Algorithms, Machine Learning, Cloud, Web, Design Patterns
- Teaching Assistant for CS557 Distributed Systems: Spring 2018 & Fall 2018

B.E. Information Technology **Pune Institute of Computer Technology**, Pune, India Aug 2011 - May 2015
GPA: 3.64

- Was the Class Representative, Elected member of students association and IEEE.

PROJECTS:

nMASE: A Search Engine for Network Trace (C, Python and Django framework)
- A network search engine which captures, processes, indexes network traffic and enables network admins to quickly find required and interesting information in it with NLP queries and ranked results. Introduced ranking of network traffic and used Boolean Information Retrieval model.
- Published paper in International Journal of Science and Research, August 2016.

Microprocessor pipeline simulator (Java)
- A simulator of modern multi-datapath, out-of-order execution pipeline which takes a sequence of assembly instructions and shows cycle-by-cycle execution. Implements multiple functional units, load store queue, reorder buffers, register renaming, issue queue, flags and support for branching and memory instructions.

Distributed, fault-tolerant, highly available key-value database (Python)
- An eventually-consistent distributed key-value database like Cassandra. Implements read repair and hinted handoff.

Equation Solver as a Service (Java, Python and Haskell)
- A REST API which accepts a picture of a linear equation(s) or mathematical expressions, extracts the equation from picture, solves it, and returns the result.

WatchFS: A real-time remotely monitored file system (Python, SQLite, html/js/css)
- A FUSE filesystem layer which records the metadata from filesystem calls and sends it to a server via REST. Server stores it in a DB and provides a web interface to show a dashboard containing charts, tables and notifications.

LANGUAGES AND TECHNOLOGIES:

Languages:	Python, Java, C, Shell scripting, SQL
Technologies:	Robot framework, MongoDB, Django, Flask, Apache tomcat, Gradle, MySQL
Tools:	Git, Perforce, Vim, Jenkins, PyCharm, IntelliJ, Eclipse, vSphere, Linux CLI
Other skills:	REST, Cloud, AWS, Virtualization, Google protobuf, TCP/IP

ACHIEVEMENTS:

- Stood third place in the Summer 2018 intern project competition at A10 Networks.
- HackBU 2018 Best Security Project Winner for 'WatchFS: a real-time remotely monitored filesystem'.
- Best project award from Quick Heal and first in paper presentation during competitions in undergrad.
- Completed online courses 'Design and Analysis of Algorithms' and 'Machine Learning' from Coursera.